UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,981	09/28/2000	Katrinka Clark	IDF 1417 (4000-01100)	7190

21396	7590	01/15/2004

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ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

3.   Claim 15 recites the limitation "the method to generate an error message" in line

1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1, 2, 10 and 16 – 19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent NO. 6,621,505 to Beauchamp in view of U.S. Patent NO.

5,535,389 to Elder.

As to claim 1, Beauchamp teaches the invention substantially as claimed

including managing communication flow [control the flow of the predefined process; col.

7, lines 40 – 62] between a user interface [client computer; col. 4, lines 63 – 67] and a

computer application performing a task [applications 32-44, Fig. 2; col. 8, lines 55 – 67]

comprising a plurality of steps [process steps 12-24, Fig. 2; col. 8, lines 55 – 67] the

sequence of the steps controlled by the application [universal client 50 will guide the

user through a series of steps to accomplish the desired process; col. 8, line 65 – col. 9,

line 8] and the progression through the steps controlled by a user operating the user

interface [one or more graphical controls for a user to control the flow of the predefined

process; col. 7, lines 40 – 61], comprising:

(a) mapping each step [process step] to an output file [associate a screen with

each process step; col. 23, lines 25 – 35] containing information to be sent to the user

interface in support of the step [server may package together presentation metadata for

the first screen in the process...based on the presentation metadata, the presentation

manager of the universal client may renders on a display the standard screen type

identified in the presentation metadata and formats the screen for the particular process

step based on the presentation metadata; col. 25, lines 15 - 40];

(b) mapping each task to a output generator [XML generator] that generates an

output [prepares the XML to be passed back] sent via an output medium [hypertext

transport protocol; col. 6, lines 43 – 49] to the user interface [client computer; col. 4,

lines 63 – 67] based upon the content of the output file [collects up all of the pertinent

information necessary to render the next step on the universal client and sends that

information to XML generator 236 which prepares the XML to be passed back to the

universal client; col. 20, lines 47 – 67]; and

(c) a task object [process server] receiving a progressional input [navigational

request] from the user interface [process server also controls the flow of the process

when navigation requests are received from the universal client; col. 24, lines 36 – 57]

and receiving a step sequence input [process metadata; col. 24, lines 36 – 57] from the

application [retrieve data from an external application; col. 21, lines 40 – 55], the task

object further performing the steps of:

        (i) comparing the progressional input to the step sequence input to identify

a subsequent step [rules engine of the process server evaluates the process

metadata against the step data returned from the universal client to determine

the next step of the process; col. 24, lines 37 – 56],

        (ii) identifying the output file mapped to the subsequent step [rules engine

234 collects up all of the pertinent information necessary to render the next step;

col. 20, lines 47 – 67], and

        (iii) calling the output generator mapped to the task to generate an output

to the user interface based upon the content of the output file mapped to the

subsequent step [rules engine 234 collects up all of the pertinent information

necessary to render the next step on the universal client and sends that

information to XML generator 236 which prepares the XML to be passed back to

the universal client; col. 20, lines 47 – 67].

Although Beauchamp substantially teaches the invention as claimed,

Beauchamp does not teach instantiating a task object modeling the task.

However, Elder teaches providing a repeatable business process capability in an

object oriented computing environment [col. 2, lines 23 – 52], a sequence of steps

[object-action message definitions and logical navigation statements; col. 10, lines 50 –

67] and instantiating a task object modeling a task [business process object is

instantiated; col. 10, lines 50 – 67].

It would have been obvious to a person of ordinarily skilled in the art at the time

of the invention to apply the teaching of instantiating a task object modeling a task as

taught by Elder to the invention of Beauchamp because this provides a repeatable

business process capability in the object oriented computing environment such that a

specific sequence of object-action messages can be repeated frequently and without

introducing any user entry error into the sequence of messages [col. 2, lines 33 - 39 of

Elder].

As to claim 19, Beauchamp as modified teaches a framework [navigational

framework; col. 7, lines 40 – 62 of Beauchamp] for managing communication flow

[control the flow of the predefined process; col. 7, lines 40 – 62 of Beauchamp] between

a user interface [client computer; col. 4, lines 63 – 67 of Beauchamp] and a computer

application performing a task [applications 32-44, Fig. 2; col. 8, lines 55 – 67 of

Beauchamp] comprising a plurality of steps [process steps 12-24, Fig. 2; col. 8, lines 55

– 67 of Beauchamp], the sequence of the steps controlled by the application [universal

client 50 will guide the user through a series of steps to accomplish the desired process;

col. 8, line 65 – col. 9, line 8 of Beauchamp] and the progression through the steps

controlled by a user operating the user interface [one or more graphical controls for a

user to control the flow of the predefined process; col. 7, lines 40 – 61 of Beauchamp],

comprising:

(a) an initialization file mapping each step [process step] to an output file

[associate a screen with each process step; col. 23, lines 25 – 35 of Beauchamp]

containing information to be sent to the user interface in support of the step [server may

package together presentation metadata for the first screen in the process...based on

the presentation metadata, the presentation manager of the universal client may

renders on a display the standard screen type identified in the presentation metadata

and formats the screen for the particular process step based on the presentation

metadata; col. 25, lines 15 – 40 of Beauchamp] and mapping each task to a output

generator [XML generator] that generates an output [prepares the XML to be passed

back] sent via an output medium [hypertext transport protocol; col. 6, lines 43 – 49 of

Beauchamp] to the user interface [client computer; col. 4, lines 63 – 67 of Beauchamp]

based upon the content of the output file [collects up all of the pertinent information

necessary to render the next step on the universal client and sends that information to

XML generator 236 which prepares the XML to be passed back to the universal client;

col. 20, lines 47 – 67 of Beauchamp]; and

(b) a task object modeling the task [business process object is instantiated; col.

10, lines 50 – 67 of Elder], the task object receiving a progressional input [navigational

request] from the user interface [process server also controls the flow of the process

when navigation requests are received from the universal client; col. 24, lines 36 – 57]

and receiving a step sequence input [process metadata; col. 24, lines 36 – 57] from the

application [retrieve data from an external application; col. 21, lines 40 – 55], the task

object further performing the steps of:

(i) comparing the progressional input to the step sequence input to identify

a subsequent step [rules engine of the process server evaluates the process

metadata against the step data returned from the universal client to determine

the next step of the process; col. 24, lines 37 – 56],

(ii) identifying the output file mapped to the subsequent step [rules engine

234 collects up all of the pertinent information necessary to render the next step;

col. 20, lines 47 – 67], and

(iii) calling the output generator mapped to the task to generate an output

to the user interface based upon the content of the output file mapped to the

subsequent step [rules engine 234 collects up all of the pertinent information

necessary to render the next step on the universal client and sends that

information to XML generator 236 which prepares the XML to be passed back to

the universal client; col. 20, lines 47 – 67].

As to claim 2, Beauchamp as modified teaches each step [each process step] is

mapped to an output file [a screen] on a one to one basis [associate a screen with each

process step; col. 23, lines 25 – 35 of Beauchamp].

As to claim 10, Beauchamp as modified teaches step objects [business object]

representing steps within the task and having a method to perform the steps [business

object is simply an object that has methods and attributes and is used specifically as the

"go between" to external systems...a screen may be the basic unit of getting work done

in a process and may only require 1) specification of screen type, 2) definition of its

purpose and 3) assignment of a business object; col. 13, lines 8 – 23 of Beauchamp]

As to claim 16, Beauchamp as modified teaches the sequence of the steps

controlled by the application is obtained by the application from an external source

[business objects may be named Java classes that provide access to any external data

required during...execution of business processes. Each step within a process will often

only deal with a subset of data from back-end systems; col. 21, lines 57 – 67 of

Beauchamp].

As to claim 17, Beauchamp as modified teaches the external source is an

initialization file [BOs 216 provide an abstraction layer that enables a process developer

to consider external application data within the context of a process, Fig. 11; col. 22,

lines 32 – 47 of Beauchamp].

As to claim 18, Beauchamp as modified teaches the external source is a

database [process server 202 may connect to an enterprise's back-end applications and

databases 204, Fig. 11; col. 22, lines 32 – 47 of Beauchamp].

6.   Claims 3 – 7, 9, 11, 12, 14 and 15 rejected under 35 U.S.C. 103(a) as being

unpatentable over Beauchamp and Elder as applied to claim 2 above, and further in

view of U.S. Patent NO. 6,012,098 to Bayeh.

As to claim 3, Beauchamp as modified by Elder teaches the invention

substantially as claimed. Beauchamp as modified does not teaches each task is

mapped to an output generator on a one to one basis.

However, Bayeh teaches each task [Steps 280 through 320 are implemented by

a rendering servlet...these steps represent the logic associated with data presentation

formatting; col. 11, lines 25 – 30] is mapped to a output generator [rendering servlet] on

a one to one basis [unique rendering servlets 85 might be created to format data

according to different presentation requirements; col. 8, lines 36 – 65].

It would have been obvious to a person of ordinarily skilled in the art at the time

of the invention to apply the teaching of mapping each task to a output generator on a

one to one basis as taught by Bayeh to the invention of Beauchamp as modified by

Elder because this optimizes system throughput by having multiple data servlets and

multiple rendering servlets and prevents bottlenecks in the system, where one process

is delayed by another process [col. 8, lines 44 – 50 of Bayeh].

As to claim 4, Beauchamp as modified teaches the output generator is a Java

servlet [rendering servlet] generating a hypertext markup language output [second type

of input to the rendering servlet 85 is an Extensible Style Language style sheet...XSL

style sheet describes how XML information is to be presented as HTML. Using these

two inputs, the rendering servlet 85 creates an HTML data stream; col. 9, lines 1 - 25 of

Bayeh].

As to claim 5, Beauchamp as modified teaches the output generator is a Java

applet [universal clients may run as Java applets under the Java virtual machine of an

existing web browser; col. 19, lines 1 – 30 of Beauchamp] generating a hypertext

markup language output [the client parses this response to produce the screen and its

contents for the user; col. 24, lines 15 – 36 of Beauchamp].

As to claim 6, Beauchamp as modified teaches the HTML output [HTTP

response] is generated from static HTML files having dynamic content [raw XML]

inserted therein by an HTML template [XML gateway 250 parses the HTTP response

from the process server and feeds the raw XML to an XML resolver 252...XML resolver

252 is responsible for parsing the XML tree to determine how the response should be

presented; col. 21, lines 10 - 39 of Beauchamp].

As to claim 7, Beauchamp as modified teaches the output medium is hypertext

transport protocol [client-computer may transmit requests...to the server computer using

a protocol including hypertext transport protocol (HTTP); col. 6, lines 43 – 49 of

Beauchamp].

As to claim 9, Beauchamp as modified teaches each step is mapped to an output

file [process designer and the process server automatically perform all data and method

mappings; col. 28, lines 18 – 33 of Beauchamp] using a screen map [data mapping is

required for screen specialization; col. 28, lines 39 – 60 of Beauchamp].

As to claim 11, Beauchamp as modified teaches the progressional input

comprises an instruction to proceed to the next step, go back to the previous step, or

cancel the step [navigational control data may include requesting a next step of the

predefined process from the server computer or requesting a previous step of the

predefined process...Control data also may include data for pausing or canceling the

current step of the predefined process; col. 6, lines 6 – 17 of Beauchamp].

As to claim 12, Beauchamp as modified teaches step sequence input from the

application is received by implementing an abstract method [process designer may

allow the developer to specify several types of step transitions which determine how the

rules engine of the process server moves from step to step; col. 27, lines 10 – 26 of

Beauchamp] that passes step sequence information from the application to the task

object [rules engine of the process server evaluates the process metadata against the step data returned from the universal client to determine the next step of the process; col. 24, lines 37 – 56 of Beauchamp].

As to claim 14, Beauchamp as modified teaches a method to generate an error message as an output to the user interface [If the business process object 702 is not in a run state, then the routine is exited and an error is signalled to the user; col. 11, lines 47 – 67 of Elder].

As to claim 15 [note the 35 U.S.C. 112 rejection above], Beauchamp as modified teaches the method to generate an error message [If the business process object 702 is not in a run state, then the routine is exited and an error is signalled to the user; col. 11, lines 47 – 67 of Elder] further comprises extending an exception handling class [inherited attributes of a child process may be overridden, and may also be extended by enabling additional attributes; col. 18, lines 48 – 60 of Beauchamp].

7.   Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauchamp, Elder and Bayeh as applied to claim 3 above, and further in view of U.S. Patent NO. 5,911,776 to Guck.

As to claim 8, Beauchamp as modified by Elder and Bayeh teaches the invention substantially as claimed. Beauchamp as modified does not teaches an interactive voice response (IVR) protocol.

However, Guck teaches server and client communication [col. 5, line 65 – col. 6, line 10] and an interactive voice response protocol [Interactive Voice Response; col. 5, line 65 – col. 6, line 10].

It would have been obvious to a person of ordinarily skilled in the art at the time of the invention to apply the teaching of an interactive voice response protocol as taught by Guck to the invention of Beauchamp as modified by Elder and Bayeh because this provides interactive manipulation of a database by allowing users to enter and retrieve information over the telephone [col. 3, lines 37 – 42 of Guck].

As to claim 13, Beauchamp as modified teaches the step (c)(i) is performed by a utility object [rules engine of the process server evaluates the process metadata against the step data returned from the universal client to determine the next step of the process; col. 24, lines 37 – 56 of Beauchamp].

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (703) 305-3406. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Li B. Zhen
Examiner
Art Unit 2126

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

lbz
January 8, 2004